



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/789,200

02/26/2004

Masami Shimizu

P/16-353

6941

2352

7590

08/07/2006

OSTROLENK FABER GERB & SOFFEN

1180 AVENUE OF THE AMERICAS

NEW YORK, NY 100368403

EXAMINER

LEUBECKER, JOHN P

ART UNIT

PAPER NUMBER

3739

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/789,200

Applicant(s)

SHIMIZU, MASAMI

Examiner

John P. Leubecker

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 17-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/26/04</u> . | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

1. Applicant's election of Group I, claims 1-16 in the reply filed on July 11, 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4, 8 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 4, 8 and 14, both occurrences of "the air-tight unit main body" (lines 6-7 and 9-10) lack antecedent basis.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 3-8, 10-14 and 16 are rejected under 35 U.S.C. 102(a and e) as being anticipated by Lee et al. (US 2003/0090352).

As to claims 1, 5, 6, 11 and 12, Lee et al. disclose a switching means (120, [0015]), an air-tight unit accommodating the switching means ([0015]), a moving member (122) disposed inside the air tight unit and which moves between a position in which the switching means designates an operation and a position in which the switching means does not designate an operation (ON, OFF), biasing means (frictional resistance inherent in any switch) which directly or indirectly biases the moving member to the position in which no operation is designated, an operating member (166) which is disposed on the outside of the air-tight unit (Fig.1), which can be operated by an operator and which is disposed such that no physical contact is made with the moving member (only magnetic coupling occurs), and switching-function change-over means (portion) (magnetic activating means 160 and magnetic responsive means 140) that moves the moving member by magnetic force into the position in which an operation is designated against the biasing force of the biasing means in accordance with the operation of the that moves the operating member. As to claims 3, 10 and 16, note [0015]. As to claims 4, 8 and 14, the first magnet is anticipated by the magnetic activating means 160 and the second magnet is anticipated by magnetic responsive means 140. As to claims 7 and 13, note [0027].

Claim Rejections - 35 USC § 103

Art Unit: 3739

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taira (U.S. Pat. 4,982,726) in view of Horton (U.S. Pat. 5,701,200) and further in view of Giannini (U.S. Pat. 4,025,885).

Taira discloses a switching means (photointerrupter 10), a body unit (8) that can accommodate the switching means (Fig.1), a moving member (9b) disposed inside the body unit (Figs. 2) and which moves between a position in which the switching means designates an operation and a position in which the switching means does not designate an operation (ON, OFF), biasing means (spring 9a) which directly or indirectly biases the moving member to the position in which no operation is designated, an operating member (9) which is disposed on the outside of the air-tight unit (Fig.1), which can be operated by an operator, and a switching function change over means (portion) (upper tube portion of 9b inside of spring 9a) that moves the moving member into the position in which an operation is designated against the biasing force of the biasing means in accordance with the operation of the operating member. Taira fails to disclose two features: that the body unit is "air-tight" and the switching-function change-over means (portion) provides no contact¹ between the operation member and the moving member (moved by magnetic force).

¹ It is clear from the specification that the term "no contact" is referring to "no physical contact" and that this term does not encompass a magnetic contact (magnetic coupling).

As to the “air-tight” feature, although the Examiner takes the position that such feature is conventional in the endoscope art and would be recognized by anyone of ordinary skill in this art as an obvious and almost inherent feature (due to the intended use of a medical endoscope), Horton is being cited as just one of numerous references that evidence that endoscopes are generally constructed as an airtight device (col.1, lines 28-41). Thus if not inherent, it would have been obvious to one of ordinary skill in the art at the time of the invention to have made the endoscope, which would include body unit 8, as an airtight device for the reasons such feature exists: to prevent moisture or airborne contaminants from infiltrating the inside of the scope, either while in use or while cleaning the device.

Taira discloses that the operating member (9) physically contacts and thus directly actuates the moving member (9b) through the housing of the body unit (8). Giannini shows that it is known in the switch art to provide a non-contact coupling between the operating member and moving member, such that the moving member is moved by a magnetic force (note Figures 1 and 12, and col.1, lines 12-15). This allows for a hermetic seal between the moving member and the operating member which “protects the switching mechanism from the environment” (col.1, lines 20-23). One would also readily recognized that such magnetic coupling would eliminate and direct electrical path from the inside to the outside of the housing, providing protection against electrical shock. Since it appears that Taira attempts to seal between the environment and the inside of the endoscope with a elastic boot (note squiggly lines extending from operating member (9) to the horizontal line which indicates the wall of the housing in Figs. 2A and 2B), it would have been obvious to one of ordinary skill in the art at the time of the invention to provided a hermetically sealed, magnetically coupled switch arrangement as taught

by Giannini in place of the direct contact switch of Taira which physically extends through the housing for the reasons set forth above. In addition, the arrangement of Giannini would constitute an improved switch structure in terms of sealing properties due to the low structural integrity (susceptibility to tearing or deterioration from use or cleaning) of the sealing structure of Taira.

Note that the obvious modification proposed above would meet the limitations of the remaining dependent claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Frith et al. (US 2005/0059858)

Lee (U.S. Pat. 4,288,767)

Friedman (U.S. Pat. 6,246,307)

Wales, Jr. (U.S. Pat. 3,273,091)

Donofrio et al. (US 2004/0230214)

Shimizu et al. (US 2004/0210108)

Anhalt (U.S. Pat. 6,633,438)

Kishimoto (U.S. Pat. 6,590,763)

Masaki (U.S. Pat. 4,812,804)

Fujio et al. (U.S. Pat. 4,751,485)

Harakui et al. (U.S. Pat. 6,929,602)

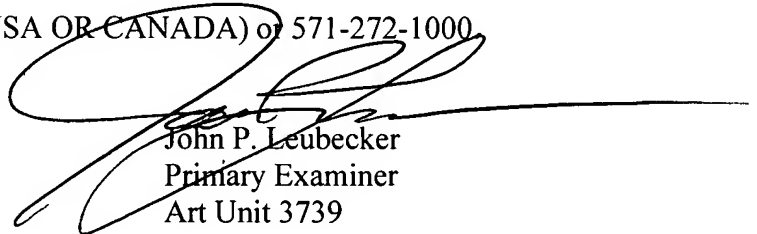
Dalmau (FR 2451093)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Leubecker whose telephone number is (571) 272-4769. The examiner can normally be reached on Monday through Friday, 6:00 AM to 2:30 PM.

Art Unit: 3739

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John P. Leubecker
Primary Examiner
Art Unit 3739

jpl